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EXAMINER
TIMBLIN, ROBERT M

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>26 April 2007</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-5,7-11,13,14,16-19 and 21* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-5, 7-11, 13-14, 16-19, and 21* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

This Office Action corresponds to application 10/787,515 filed 2/26/2004.

Response to Amendment

The Applicants' amendment, filed 4/26/2007, has been received, entered into the

record and considered. As a result of the amendment, claims 1-5, 7-11, 13-14, 16-19,

and 21 are pending in the application.

Claim Rejections - 35 USC § 112

The previous 112 rejections have been removed in light of Applicant's

amendments.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 3, 9, 10, 14, 17 and 18 are rejected under 35 U.S.C. 102(b) as being

anticipated by **Rierden et al.** (hereinafter **Rierden**, US 5,978,577).

Regarding claim 1, **Rierden** teaches a communications system comprising:

a plurality of account databases each for storing information associated with different accounts (See column 2, lines 22 - 29 "Cable system operators typically maintain large databases containing a variety of subscriber, product and billing information...include subscriber accounts...It is often desirable to distribute this information across a network of databases whether or not they are located at the same physical location.");

a central database [DDS] for storing location information associating each account with a respective account database [data servers] (See column 4, lines 11-16 "According to one embodiment of the invention, these and other objects of the invention are achieved through the use of at least one Data Directory Server (DDS) located between one or more transaction generators and one or more data servers. The DDS efficiently routes transactions and provides data location functions." and see FIG 5. showing the different account information being stored on the data servers.), and also for storing shared system setup information (col. 23 lines 23-49);

at least one communications device [transaction generators] for accessing account information (See column 5, lines 45-48 "The transaction generators 120 in the system of the present invention may be any devices capable of receiving input from a human user and transmitting that input to the Data Directory Servers (DDSs) 150."); and

an interface device [DDS] for receiving an account access request from said at least one communications device for a desired account (See column 6, line 8 "After receiving a client request..." The DDS in the invention contains the equivalent of both the central database and the interface device of the claims. While there is no separate

interface device, the DDS performs the function of both the central database and the

interface device of the claims, and examiner considers them to be equivalent.),

retrieving account location information from said central database for the desired

account (see column 6, lines 8-10 "...the selected DDS 150 first locates the appropriate

server 160..." and see column 8, lines 55 – 57 "There is also provided an Xref Server

Table (global) which identifies all known and accessible Xref Servers 170." Either the

DDS or the Xref Server could be considered to be a central database which stores

account location information.), and interfacing said at least one communications device

with said respective account database associated with the desired account based

thereon (see column 6, lines 10-12 "...it then submits the client request to the selected

server and finally the DDS 150 returns the result to the submitting client 120." And see

column 9, lines 22 – 25 "Alternatively, the result set may pass through the DDS 150 to

the client 120 without any additional processing on the part of the DDS 150..." This is

providing an interface between the account database and the communication device.),

and

caching [storing in a local table] the account location information and using the

cached account location information (See column 28, lines 51- 54 "In a second

embodiment, the DDS itself maintains one or more internal tables which indicate, based

upon a particular customer number, the server containing the associated data." Storing

in a local table on the DDS is considered caching the account location information.) for

subsequently interfacing [transmitting to Server A] said at least one communications

device with said respective account database. (See column 28, lines 57 – 61 "...the

command stream generated by the DDS is transmitted to Server A which executes the commands and returns the record for Joe Smith through the DDS, in passthrough mode, to the requesting client.")

said interface device also retrieving and caching the shared system setup information (col. 23 lines 23-49) for use in interfacing (col. 3 line 15-20) said at least one communication device with said respective account database.

Regarding claim 2, **Rierden** teaches said interface device comprises a caching module for caching the account location information. (See column 28, lines 51- 54 "In a second embodiment, the DDS itself maintains one or more internal tables which indicate, based upon a particular customer number, the server containing the associated data." Storing in a local table on the DDS is considered caching the account location information.)

Regarding claims 3, 10, and 18, **Rierden** teaches said at least one communications device has an operating protocol associated therewith, and wherein said interface device comprises at least one protocol interface module for communicating with said at least one communications device [transaction generators] using the operating protocol. (See column 2, lines 49 – 53 "Communication techniques and protocols which are known in the art are employed to allow the transaction generators to communicate with the servers. For example, Eterne™ may be used when both client and server are PC-based processors.")

Regarding claim 9, **Rierden** teaches an interface device for interfacing at least

one communications device [transaction generators] with a plurality of account

databases [data servers] each for storing information associated with different accounts

(See column 4, lines 11-16 "According to one embodiment of the invention, these and

other objects of the invention are achieved through the use of at least one Data

Directory Server (DDS) located between one or more transaction generators and one or

more data servers. The DDS efficiently routes transactions and provides data location

functions." and see FIG 5. showing the different account information being stored on the

data servers.); the interface device comprising:

a control module [DDS] for receiving an account access request from the at least

one communications device [transaction generator] for a desired account (See column

5, lines 45-48 "The transaction generators 120 in the system of the present invention

may be any devices capable of receiving input from a human user and transmitting that

input to the Data Directory Servers (DDSs) 150."),

retrieving account location information [locates the appropriate server]

associating the desired account with a respective account database from a central

database (see column 6, lines 8 – 10 "After receiving a client request, the selected DDS

150 first locates the appropriate server 160 for execution for the request..."), and

interfacing the at least one communications device with the respective account

database associated with the desired account based thereon (see column 6, lines 10-12

"...it then submits the client request to the selected server and finally the DDS 150

returns the result to the submitting client 120." And see column 9, lines 22 – 25 "Alternatively, the result set may pass through the DDS 150 to the client 120 without any additional processing on the part of the DDS 150..." This is providing an interface between the account database and the communication device.), and

a caching module [internal table, part of the DDS] coupled to said control module [DDS] for caching the account location information [server containing associated data] (See column 28, lines 51- 54 "In a second embodiment, the DDS itself maintains one or more internal tables which indicate, based upon a particular customer number, the server containing the associated data." Storing in a local table on the DDS is considered caching the account location information.), said control module using the cached account location information for subsequently interfacing [transmitting to Server A] the at least one communications device with the respective account database. (See column 28, lines 57 – 61 "...the command stream generated by the DDS is transmitted to Server A which executes the commands and returns the record for Joe Smith through the DDS, in passthrough mode, to the requesting client.");

the central database further storing shared system setup information (col. 23 lines 23-49), and said control module also retrieving the shared system setup information (col. 23 lines 23-49) for use in interfacing (col. 3 line 15-20) the at least one communications device with the respective account database, and said caching module caching the retrieved shared system setup information (col. 23 lines 23-49).

Regarding claim 14, **Rierden** teaches a method for interfacing at least one communications device [transaction generators] with a plurality of account databases

[data servers] each for storing information associated with different accounts (See

column 4, lines 11-16 "According to one embodiment of the invention, these and other

objects of the invention are achieved through the use of at least one Data Directory

Server (DDS) located between one or more transaction generators and one or more

data servers. The DDS efficiently routes transactions and provides data location

functions." and see FIG 5. showing the different account information being stored on the

data servers.); the method comprising:

receiving an account access request from the at least one communications

device [transaction generator] for a desired account (See column 5, lines 45-48 "The

transaction generators 120 in the system of the present invention may be any devices

capable of receiving input from a human user and transmitting that input to the Data

Directory Servers (DDSs) 150.");

retrieving account location information [locates the appropriate server]

associating the desired account with a respective account database and shared system

setup information (col. 23 lines 23-49) from a central database (see column 6, lines 8 –

10 "After receiving a client request, the selected DDS 150 first locates the appropriate

server 160 for execution for the request...");

interfacing the at least one communications device with the respective account

database associated with the desired account based upon the retrieved account

location information (see column 6, lines 10-12 "...it then submits the client request to

the selected server and finally the DDS 150 returns the result to the submitting client

120." And see column 9, lines 22 – 25 "Alternatively, the result set may pass through

the DDS 150 to the client 120 without any additional processing on the part of the DDS

150..." This is providing an interface between the account database and the

communication device.) and the retrieved shared system setup information (col. 23 lines

23-49); and

caching the account location information [server containing associated data] (See

column 28, lines 51- 54 "In a second embodiment, the DDS itself maintains one or more

internal tables which indicate, based upon a particular customer number, the server

containing the associated data." Storing in a local table on the DDS is considered

caching the account location information.) and the retrieved shared system setup

information (col. 23 lines 23-49) and using the cached account location information and

the retrieved shared system setup information (col. 23 lines 23-49) for subsequently

interfacing [transmitting to Server A] the at least one communications device with the

respective account database. (See column 28, lines 57 – 61 "...the command stream

generated by the DDS is transmitted to Server A which executes the commands and

returns the record for Joe Smith through the DDS, in passthrough mode, to the

requesting client.")

Regarding claim 17, **Rierden** teaches a computer-readable medium having

computer executable instructions for interfacing at least one communications device

[transaction generators] with a plurality of account databases [data servers] each for

storing information associated with different accounts (See column 4, lines 11-16

"According to one embodiment of the invention, these and other objects of the invention

are achieved through the use of at least one Data Directory Server (DDS) located between one or more transaction generators and one or more data servers. The DDS efficiently routes transactions and provides data location functions." and see FIG 5. showing the different account information being stored on the data servers.); the computer-readable medium comprising:

a control module [DDS] for receiving an account access request from the at least one communications device [transaction generator] for a desired account (See column 5, lines 45-48 "The transaction generators 120 in the system of the present invention may be any devices capable of receiving input from a human user and transmitting that input to the Data Directory Servers (DDSs) 150."),

retrieving account location information [locates the appropriate server] associating the desired account with a respective account database from a central database (see column 6, lines 8 – 10 "After receiving a client request, the selected DDS 150 first locates the appropriate server 160 for execution for the request..."), and

interfacing the at least one communications device with the respective account database associated with the desired account based thereon (see column 6, lines 10-12 "...it then submits the client request to the selected server and finally the DDS 150 returns the result to the submitting client 120." And see column 9, lines 22 – 25 "Alternatively, the result set may pass through the DDS 150 to the client 120 without any additional processing on the part of the DDS 150..." This is providing an interface between the account database and the communication device.), and

a caching module [internal table, part of the DDS] for caching the account

location information [server containing associated data] (See column 28, lines 51- 54 "In

a second embodiment, the DDS itself maintains one or more internal tables which

indicate, based upon a particular customer number, the server containing the

associated data." Storing in a local table on the DDS is considered caching the account

location information.), said control module using the cached account location

information for subsequently interfacing [transmitting to Server A] the at least one

communications device with the respective account database. (See column 28, lines 57

– 61 "...the command stream generated by the DDS is transmitted to Server A which

executes the commands and returns the record for Joe Smith through the DDS, in

passthrough mode, to the requesting client.");

the central database further storing shared system setup information (col. 23

lines 23-49), said control module also retrieving the shared system setup information

(col. 23 lines 23-49) for use in interfacing the at least one communications device with

the respective account database, and said caching module caching the retrieved shared

system setup information (col. 23 lines 23-49).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in
section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
such that the subject matter as a whole would have been obvious at the time the invention was made to a

person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4, 5; 7, 8; 11; 13; 16; 9; and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Rierden** as applied to claims 3; 1; 10; 9; 14; 18; and 17, respectively above, and further in view of **Smith et al.** (hereinafter **Smith**, US 6,871,215).

Regarding claims 4,11, and 19, **Rierden** teaches a communication system substantially as claimed. **Rierden** does not explicitly disclose said at least one protocol interface module comprises at least one of a wireless access protocol (WAP) module, a post office protocol (POP) module, and a hypertext markup language (HTML) module. However, **Smith** teaches said at least one protocol interface module comprises at least one of a wireless access protocol (WAP) module, a post office protocol (POP) module, and a hypertext markup language (HTML) module (See column 2, lines 30-34 "The universal mail application preferably includes multiple front-end user interfaces from WAP and HDML for installation on relevant wireless devices, e.g., on a PQA for PDS software, or on standard HTML interface.")

It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the teachings of **Smith** with **Rierden** because **Smith** also relates to handling a plurality of account files, and by including the various protocols mentioned in **Smith**, the system is more robust by being able to handle a variety of newer protocols, some of which allow for e-mail and internet functionality. It is for this reason that one of ordinary skill in the art would have been motivated to include said at least

one protocol interface module comprises at least one of a wireless access protocol (WAP) module, a post office protocol (POP) module, and a hypertext markup language (HTML) module.

It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the teachings of **Smith** with **Rierden** because **Smith** also relates to handling a plurality of account files and by including the operating protocol interface of **Smith**, various disparate protocols can be interpreted, then used by the system providing greater functionality. It is for this reason that one of ordinary skill in the art would have been motivated to include said at least one communications device has an operating protocol associated therewith, and wherein said interface device comprises at least one protocol interface module for communicating with said at least one communications device using the operating protocol.

Regarding claim 5, the combination of **Smith** and **Rierden** additionally discloses said interface device further comprises a control module for interfacing said at least one protocol interface module with said central and account databases. (See **Smith** page 3, paragraph [0028] "The mail bridge 100 further includes an account information store 171 for storing account information for e mail accounts at the Internet mail servers, and an account information module that is used to manage and retrieve the account information in the account information store 171." The mail bridge performs the function of the control module mentioned in the claim.)

Regarding claim 7, the combination of **Smith** and **Rierden** additionally teaches said at least one communications device comprises at least one mobile wireless communications device. (See **Smith** column 2, lines 25-29 "The present invention relates to a universal mail application for wireless device application which allows a user the ability to access and view email messages from a personal account using Internet Message Access Protocol (IMAP)." The device is a mobile wireless communication device.)

Regarding claims 8, 13, 16, and 21, the combination of **Smith** and **Rierden** additionally teaches the accounts comprise electronic mail (e-mail) accounts. (See **Smith** column 1, lines 41-44 "In accordance with the principles of the present invention, a universal mail module comprises a plurality of e mail account information files relating to a corresponding plurality of e mail accounts of a wireless subscriber.")

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Rierden** as applied to claim 14 above, and further in view of **Hoover**.

Rierden teaches interfacing comprises interfacing the at least one communications device with the respective account database also based up on the retrieved shared system setup information. (see column 6, lines 10-12 "...it then submits the client request to the selected server and finally the DDS 150 returns the result to the submitting client 120." And see column 9, lines 22 – 25 "Alternatively, the result set may pass through the DDS 150 to the client 120 without any additional processing on

the part of the DDS 150..." This is providing an interface between the account database

and the communication device. And see column 28, lines 55 – 57 "In either case, the

stored procedure is translated at the DDS level into SQL commands recognizable to the

data servers containing the data." This translation uses the system setup information to

facilitate the interfacing).

Rierden does not explicitly disclose retrieving further comprises retrieving shared

system setup information from the central database, and wherein caching further

comprises caching the retrieved shared system setup information also for use in

subsequently interfacing the at least one communications device with the respective

account database.

However, **Hoover** teaches retrieving further comprises retrieving shared system

setup information from the central database, and wherein caching further comprises

caching the retrieved shared system setup information also for use in subsequently

interfacing [interact] the at least one communications device with the respective account

database. (See column 23, lines 23-49, where object attribute tables are explained,

which describes the format of the data in the database, and how the tables allow the

system to interact with disparate database formats.)

It would have been obvious to one with ordinary skill in the art at the time of the

invention to combine **Hoover** with **Rierden** because **Hoover** also addresses distributed

databases and by storing the system setup information, the various linked in systems do

not have to have the setup information entered every time and provides for a more

efficient system. It is for this reason that one of ordinary skill in the art would have been

motivated to include said central database further stores shared system setup information; and wherein said interface device also retrieves and caches the shared system setup information for use in interfacing said at least one communications device with said respective account database.

Response to Arguments

Applicant's arguments filed 4/26/2007 have been fully considered but they are not persuasive.

Applicant argues on page 12 of the remarks that Hoover fails to teach or suggest the claims as amended. In particular, Applicant argues that Hover fails to teach storing shared system setup information that is used by clients to access corresponding databases. The Examiner respectively disagrees with Applicant's arguments as provided below:

Hoover teaches, as cited at col. 23 lines 23-49, an object attribute table (OAT) maintained on each user computer. Each user computer also stores and maintains object attribute table indexes. As can be seen in figure 6 and read in col. 23 line 27-30, the object attribute tables of a user computer (12a) correspond to the object index table in the object broker (20). The Examiner respectfully submits that the object attribute table equates to Applicant's shared system setup information because the attributes in attribute table (140) are part of the homogeneous data model. Put another way, as the user computers share the data model, this data model can be equated to the shared

system setup information (i.e. a data model would essentially show how a system is set up). Because the user computers share this data model, it sufficiently teaches shared system setup information.

To further explain, Hoover teaches a system that provides a seamless interface between a plurality of remotely located, heterogeneous databases and a corresponding homogeneous data model so as to allow the retrieval storage of information on a global basis (col. 3 line 15-20). In this respect, the data model is shared system setup information for use in interfacing with the remote databases, and thus sufficiently teaches and describes Applicant's amended limitations.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert M. Timblin whose telephone number is 571-272-5627. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Robert M. Timblin

Patent Examiner AU 2167
7/6/2007

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